

WHAT IS CLAIMED IS:

1 1. A plasma display device, comprising:
2 a plasma display panel;
3 a chassis base comprising a plurality of circuit elements attached to the chassis base; and
4 a regulating member mounted on a surface of the chassis base near a circuit element, said
5 regulating member forming a partial barrier dividing a space within said plasma display device.

1 2. The plasma display device of claim 1, the chassis base being quadrilateral, the regulating
2 member being disposed on an upper area of the chassis base between a top of the display panel and
3 a circuit element, said regulating member being a predetermined distance from the circuit assembly.

1 3. The plasma display device of claim 1, said plasma display device comprising a plurality
2 of regulating members wherein adjacent regulating members are separated from each other by a gap
3 of a predetermined size, each of the plurality of regulating members corresponding to and being
4 disposed above respective ones of a plurality of circuit elements.

1 4. The plasma display device of claim 3, each of the plurality of regulating members
2 comprises:
3 a main body comprising a plurality of curves that are integrally combined, said main body
4 extending from a surface of said chassis base to divide said space within said plasma display device;

5 and

6 tabs integrally formed to the main body, said tabs being formed parallel to said surface of said
7 chassis base and being fixed to the chassis base, said main body forming an angle with said tabs.

1 5. The plasma display device of claim 4, each of the plurality of regulating members being
2 screw-coupled to the chassis base using holes formed in the tabs.

1 6. The plasma display device of claim 3, when of each of the plurality of regulating members
2 is mounted to the chassis base, each of the plurality of regulating members comprising:

3 one or more convex section that curve in a direction toward the corresponding circuit
4 element; and

5 two or more concave sections that curve in a direction away from the corresponding circuit
6 element.

1 7. The plasma display device of claim 6, the convex section of the main body of each of the
2 plurality of regulating members being at a center of each corresponding main body, and the concave
3 sections being disposed on opposite sides of the convex section, the convex section bulging towards
4 a corresponding circuit element.

1 8. The plasma display device of claim 1, the regulating member being made of aluminum.

1 9. The plasma display device of claim 1, the regulating member being made of corrugated
2 cardboard.

1 10. The plasma display device of claim 1, wherein the regulating member comprises:
2 a straight main body that extends in a lateral direction along a direction of a width of the
3 chassis base corresponding to a width of the display; and
4 connecting members formed at an angle with the main body, the connecting members being
5 formed in parallel and in contact with the chassis base, the main body comprises aperture and non
6 aperture portions disposed alternately along said main body, wherein each non-aperture portion being
7 disposed near a corresponding circuit element and each aperture portion being disposed near a space
8 between two adjacent circuit elements.

1 11. The plasma display device of claim 10, wherein the main body is screw-coupled to the
2 chassis base through holes formed in the connecting members.

1 12. The plasma display device of claim 10, wherein apertures formed in the aperture portions
2 occupy 80% or more of a total area of the aperture portions.

1 13. The plasma display device of claim 1, wherein the regulating member comprises:
2 a straight, non-curved main body that extends along a direction of a width of the chassis base
3 corresponding to a width of the display; and

4 connecting members formed integrally with and at an angle with the main body, wherein the
5 main body comprises first aperture portions formed with second aperture portions in an alternating
6 manner, wherein the first aperture portions are disposed near corresponding ones of said plurality
7 of circuit elements and said second aperture portions being disposed at locations corresponding to
8 locations between a pair of adjacent circuit elements.

1 14. The plasma display device of claim 13, wherein apertures formed in the first aperture
2 portions occupy less than 20% of a total area of the first aperture portions.

1 15. The plasma display device of claim 13, wherein apertures formed in the second aperture
2 portions occupy 80% or more of a total area of the second aperture portions.

1 16. The plasma display device of claim 10, said plasma display device comprising at least
2 two regulating members, said regulating members being essentially parallel to each other and being
3 staggered so that the aperture portions of one regulating member faces non-aperture portions of
4 another adjacent regulating member and the aperture portions of said one regulating member faces
5 non-aperture portions of said another adjacent regulating member.

1 17. The plasma display device of claim 13, said plasma display device comprising at least
2 two regulating members, said regulating members being essentially parallel to each other and being
3 staggered so that the first aperture portions of one regulating member faces second aperture portions

4 of another adjacent regulating member and second aperture portions of said one regulating member
5 faces first aperture portions of said another adjacent regulating member.

1 18. A plasma display device, comprising:

2 a plasma display panel;

3 a chassis base formed in a quadrilateral shape, the plasma display panel being supported by
4 the chassis base on one side of the display panel;

5 a plurality of circuit elements disposed on a side of the chassis base opposite from the side
6 of the chassis base that the plasma display panel is mounted, the circuit elements applying electrical
7 signals necessary for driving the plasma display panel; and

8 a regulating member mounted to an upper portion of the chassis base and near one of the
9 plurality of circuit elements, the regulating member dividing a space within the plasma display
10 device and being disposed in such a manner as to cause hot air rising from said plurality of circuit
11 elements to move in a lateral direction perpendicular to a direction of rising hot air to a location
12 within the plasma display device that is absent of the circuit elements prior to when said hot air
13 emerges from said plasma display device.

1 19. The plasma display device of claim 18, wherein the regulating member being a passive
2 member and being curved, said regulating member being positioned within said plasma display
3 device causing said rising hot air to divide in opposite lateral directions.

1 20. The plasma display device of claim 18, wherein the regulating member passive and is
2 absent of curves.